

Amendment to the Claims:

Please amend the claims to read as follows:

1. (currently amended) A composition of matter comprising a fluorescent product ~~derived from~~ a modified form of an Aequorea wild-type GFP polypeptide, wherein the amino acid sequence of said modified form of an Aequorea wild-type GFP polypeptide is at least 95% homologous to the amino acid sequence of SEQ ID NO:2, ~~characterized in that~~ and wherein, upon oxidation and cyclization of amino acid residues in the modified form corresponding to positions 65 to 67 of wild-type GFP polypeptide sequence { (SEQ ID NO:2) }, a fluorescent product exhibiting a different excitation and/or emission spectrum from a corresponding product ~~derived from~~ of the wild-type GFP polypeptide sequence is formed.
2. (currently amended) A composition according to claim 1, wherein the fluorescent product exhibits an alteration in the ratio of two main excitation peaks relative to the corresponding product ~~derived from~~ of wild-type GFP.
3. (original) A composition according to claim 2, wherein increased fluorescence is exhibited at a shorter-wavelength peak of the two main excitation peaks.
4. (original) A composition according to claim 3, wherein the modified form of the wild-type GFP sequence comprises a replacement of Ser at a position corresponding to position 202 in the wild-type GFP sequence by Phe and a replacement of Thr at a position corresponding to position 203 by Ile.
5. (original) A composition according to claim 2, wherein increased fluorescence is exhibited at a longer-wavelength peak of the two main excitation peaks.
6. (original) A composition according to claim 5, wherein the modified form of the wild-type GFP sequence comprises a replacement of Ile at a position corresponding to position 167 of the wild-type GFP sequence by Val or Thr.

7. (original) A composition according to claim 5, wherein the modified form of the wild-type GFP sequence comprises a replacement of Ser at a position corresponding to position 65 of the wild-type GFP sequence by Thr, a replacement of Met at position 153 with Ala, and a replacement of Lys at position 238 with Glu.

8. (currently amended) A composition according to claim 1, wherein the fluorescent product fluoresces at a shorter wavelength than the corresponding product derived from wild-type GFP.

9. (original) A composition according to claim 8, wherein the modified form of the wild-type GFP sequence comprises a replacement of Tyr at a position corresponding to position 66 of the wild-type GFP sequence by Phe, His or Trp.

10. (original) A composition according to claim 8, wherein the modified form of the wild-type GFP sequence comprises a replacement of Tyr at a position corresponding to position 66 of the wild-type GFP sequence by His and a replacement of Tyr at position 145 with Phe.

11. (original) A composition according to claim 8, wherein the modified form of the wild-type GFP sequence comprises a replacement of Tyr at a position corresponding to position 66 of the wild-type GFP sequence by Trp, a replacement of Asn at position 146 by Ile, a replacement of Met at position 153 by Thr, a replacement of Val at position 163 by Ala, and a replacement of Asn at position 212 by Lys.

12. (original) A composition according to claim 8, wherein the modified form of the wild-type GFP sequence-comprises a replacement of Tyr at a position corresponding to position 66 of the wild-type GFP sequence by Trp, a replacement of Ile at position 123 by Val, a replacement of Tyr at position 145 by His, a replacement of His at position. 148 by Arg. a replacement of Met at position 153 by Thr, a replacement of Val at position 163 by Ala, and a replacement of Asn at position 212 by Lys.

13. (currently amended) A composition according to claim 1, wherein ~~the~~ the fluorescent product exhibits enhanced emission relative to the corresponding product ~~derived from~~ of wild-type GFP.

14. (original) A composition according to claim 13, wherein the modified form of the wild-type GFP sequence comprises a replacement of Ser at a position corresponding to position 65 of the wild-type GFP sequence by an amino acid selected from the group consisting of Ala, Cys, Thr, Leu, Val and Ile.;

15. (original) A composition according to claim 14, wherein the amino acid is Cys or Thr.

16-23. (canceled)